



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

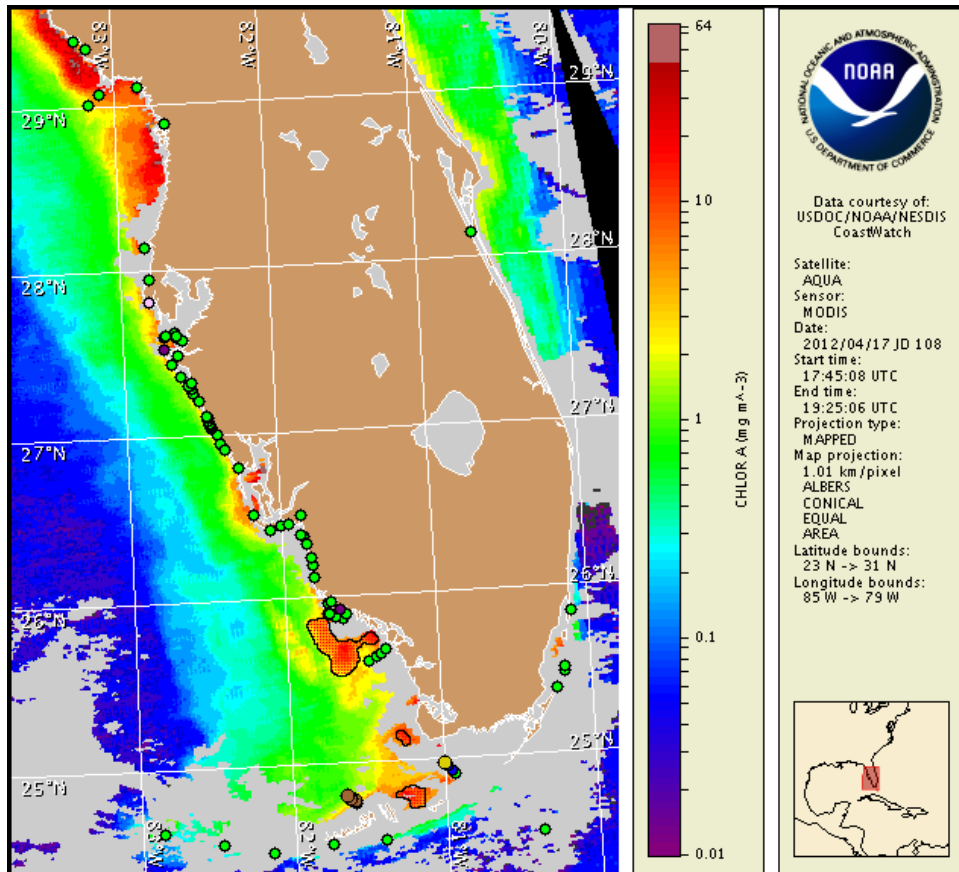
Thursday, 19 April 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 16, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from April 9 to 18 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfbs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A patchy harmful algal bloom is present in the Marco Island region of central Collier County and in the Gulfside region of the Lower to Middle Florida Keys. Harmful algae has been identified in Manatee County. Patchy very low impacts are possible in the Marco Island region of central Collier County and in the Gulfside region of the Lower to Middle Florida Keys today through Sunday. No additional impacts are expected along-shore southwest Florida today through Sunday, April 22.

Analysis

Southwest Florida: A patchy *Karenia brevis* bloom is present in the Marco Island region of central Collier County. Recent sampling in the Marco Island region identified 'very low a' *K. brevis* concentrations at the Goodland Bridge; however, all other samples collected throughout the region, including South Marco Beach, indicate that *K. brevis* is not present (4/16; CCPCPD, FWRI). 'Very low a' concentrations were also identified farther north, alongshore Anna Maria Island in Manatee County on Tuesday, and background concentrations continue to be identified alongshore Pinellas County at the Redington Pier (4/16-17; FWRI). No additional *K. brevis* was detected along the coast of southwest Florida from Pinellas to Collier Counties this week (4/9-17; CCPCPD, FWRI, SCHD). Additional sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

Recent MODIS imagery (4/17; shown left) is partially obscured by clouds along the coast of southwest Florida, limiting analysis. Patches of elevated to high chlorophyll (2-15 $\mu\text{g/L}$) remain visible along- and offshore Collier and Monroe counties from the Marco Island region to the Pavilion Key area, extending approximately 20-25 miles offshore. Elevated chlorophyll (2-9 $\mu\text{g/L}$) also remains visible west of Cape Sable. Several samples collected along and offshore Pavilion Key last week indicated that *K. brevis* was not present in this region (4/12; MML); however, continued sampling throughout these regions is recommended. Patches of elevated chlorophyll (2-7 $\mu\text{g/L}$) are also visible alongshore from Pinellas to Lee counties, including alongshore Manatee County, where 'very low a' *K. brevis* concentrations were recently identified. While some elevated chlorophyll may be due to the presence of *K. brevis*, most elevated chlorophyll throughout the region is likely the result of various non-toxic blooms that have been reported throughout the region in Pinellas, Manatee, and Collier counties (4/16-17; FWRI). Continued sampling to verify the presence of *K. brevis* is recommended. Forecasted winds may maintain bloom location through the weekend.

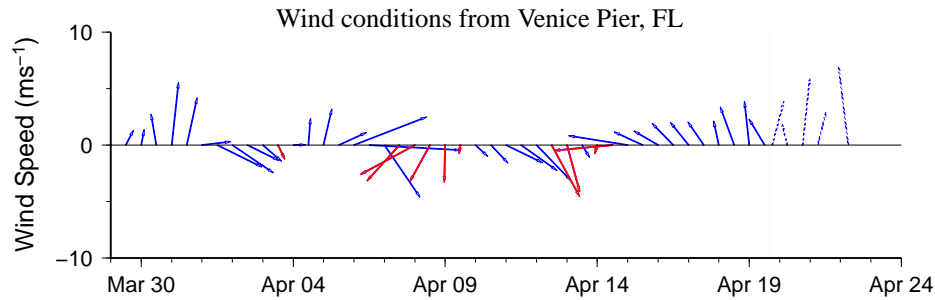
Florida Keys: A harmful *K. brevis* bloom remains present north of the Lower to Middle Florida Keys. No new samples are available for the Gulf side region of the Lower to Middle Florida Keys, where 'very low' to 'low b' *K. brevis* concentrations were identified offshore Sawyer and Oxfoot Keys early last week (4/9-10; MML). Two samples collected late last week south of the Lower to Middle Keys, approximately 0.5 miles southwest of Looe Key and 29 miles southeast of Upper Matecumbe Key, both indicate that *K. brevis* is not present on the ocean side of the Keys (4/13; FWRI). Recent MODIS imagery (4/17; shown left) in the Florida Keys region is predominantly obscured by clouds, limiting analysis. Patches of elevated to high chlorophyll (3-14 $\mu\text{g/L}$) remain visible north of the Lower to Middle Keys; this region will continue to be monitored as imagery becomes available. Forecasted winds may transport the bloom east through the weekend.

Wind Analysis

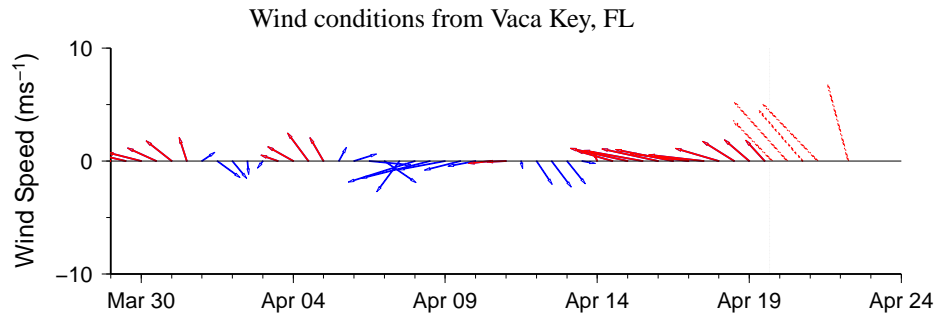
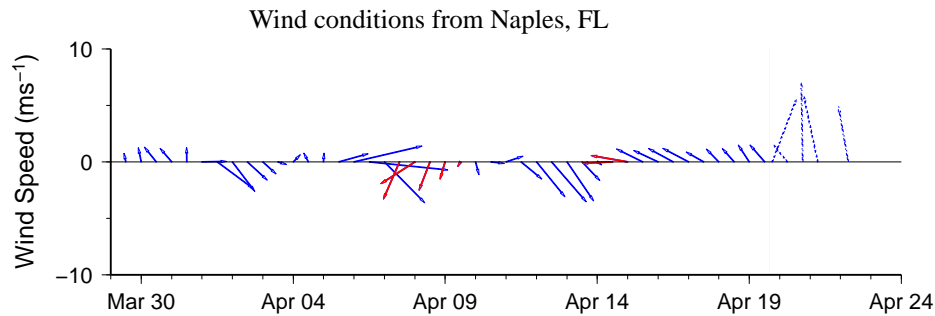
Pinellas to Lee Counties: Southwest winds (10-15kn, 5-8m/s) today becoming south (10kn, 5m/s) tonight. Southwest winds (10kn) Friday becoming southeast Friday night. South winds (15kn, 8m/s) Saturday. West winds (15kn) Sunday becoming northwest in the afternoon. North winds (15kn) Sunday night.

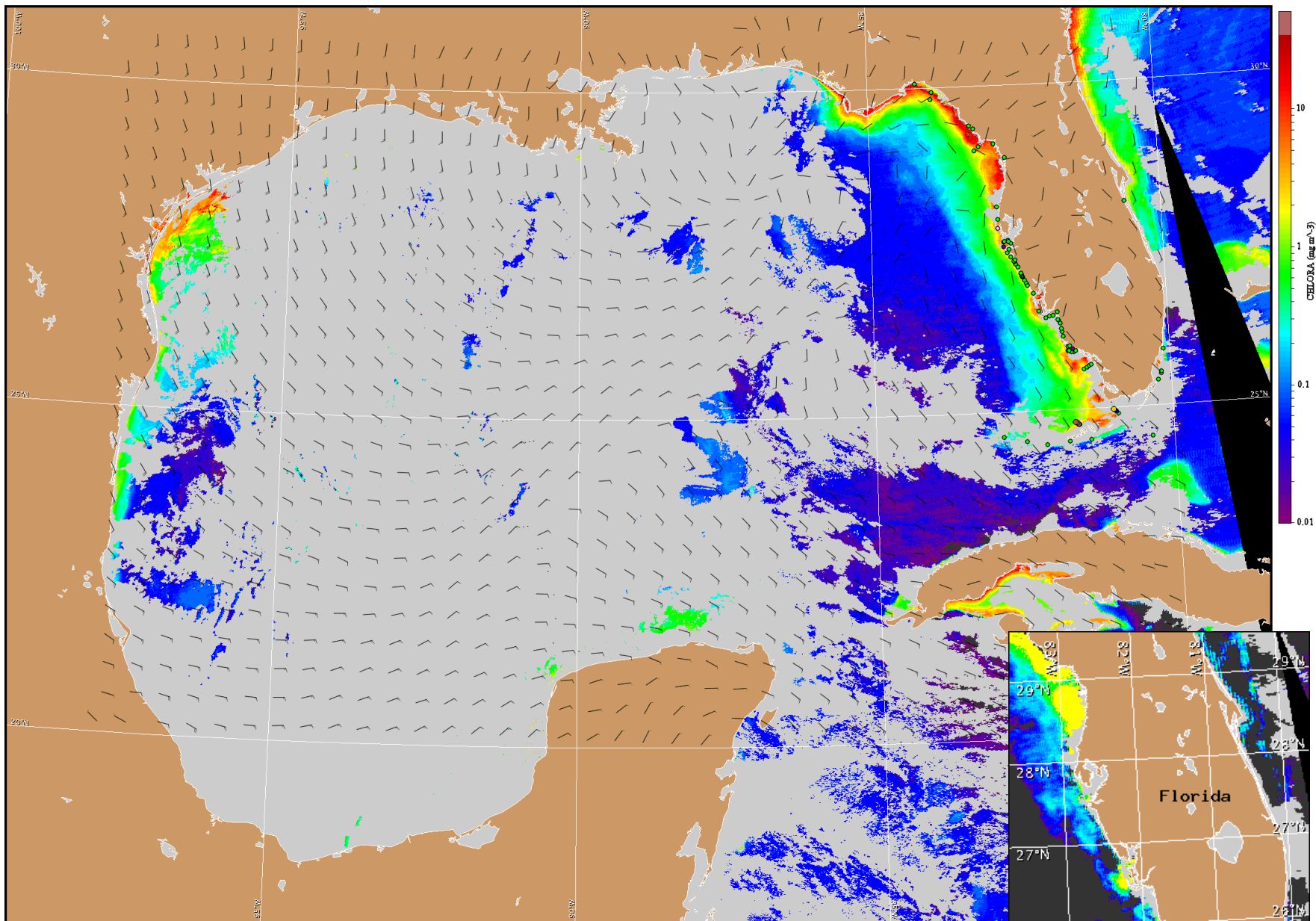
Collier to Monroe Counties: South southeast winds (8-17kn, 4-9m/s) today through Saturday. South southwest winds (11-24kn, 6-12m/s) Saturday night through Sunday. West winds (15-20kn, 8-10m/s) Sunday night.

Florida Keys - Gulfside: Southeast winds (10kn) today through Friday. South southeast winds (10-15kn) Friday night. South winds (15kn) Saturday becoming south southwest (15-20kn) Saturday night. Southwest to west winds (20kn, 10m/s) Sunday becoming west to northwest winds (20kn) Sunday night.



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for April 20, 2012 06Z with cell concentration sampling data from April 9 to 18 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).